Experience Rating: Take Your Medicine or Find a New Prescription?

International Symposium on the Challenges of Workplace Injury Prevention through Financial Incentives

November 28, 2012

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Experience Rating:
Take Your Medicine or Find a New Prescription?
Overview

• Positive and negative effects of experience rating
• Describe alternative incentive schemes
• Possible advantages of alternatives
• Do we know their likely impact?
• Where might we go from here?
PPD Workers’ Earnings Drop After Injury & Losses Continue for Many Years

Reville et al. 2001
Limitations on Family and Social Roles from Workplace Back Injuries, Florida

Possible Beneficial Effects of Experience Rating

• Employers may take additional safety precautions

• Employers may provide better return to work accommodations
Potential Negative Effects of Experience Rating

- Discrimination against “injury prone” or injured workers (Harcourt, Lam, & Harcourt 2007)
- More aggressive employer responses to claims (Kralj 1994; Hyatt & Kralj 1995; Thomason & Pozzebon 2002)
- Use of general health insurance and nonwork disability insurance for work-related injuries
- Use group employee financial incentives to discourage claim filing
- Contracting out of dangerous work
- Mistrust and stigmatization of injured workers

General source: Ison 1986
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General source: Ison 1986
This is not a pipe
Incentives: Using Bonuses or Penalties

• Experience rating

• Practice-based incentives based on
  – Specific practices (for example, health & safety committees)
  – OSH Management Systems

• Incentives based on safety climate (or related leading indicators)

• Regulatory standards, inspections, and penalties
Incentives: Reducing the Cost of Better H & S

• Tax deductions or credits
• Premium credits for safety or RTW programs
• Guidelines and related information provision
• Free or subsidized consultation
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Some Potential Policy Choices

• Experience rating – as is

• Experience rating with effective controls on its negative effects

• Eliminate experience rating
  – Simply maintain other existing incentive systems
  – Add incentives that reduce H&S costs
  – Add incentives for OSH Management Systems
  – Add incentives based on safety climate or other leading indicators
“Conceptual Model” - H&S Management Systems

Underlying Risk

HSMS

Injury Rates
OSH Management Systems

• “A set of interrelated or interacting elements to establish OSH policy and objectives and to achieve those objectives.” (ILO 2001)

• An integrated management program oriented toward prevention, using outcomes feedback to improve program effectiveness

• Redinger & Levine (1998) define 27 elements
16 Primary Elements of OSHMS (of 27)

- management commitment and resources
- employee participation
- occupational health and safety policy
- goals and objectives
- performance measures
- system planning and development
- OHSMS manual and procedures
- training system
- hazard control system
- preventive and corrective action system
- procurement and contracting
- communication system
- evaluation system
- continual improvement
- integration
- management review

Redinger & Levine 1998; Robson et al. 2007
Studies Provide Little Effectiveness Evidence for OSH Management Systems


• 7 voluntary, 1 with injury/illness outcomes

• 6 mandatory, 3 with injury/illness outcomes
  – 1 HSC study – mixed results (Lewchuk et al. 1996)
  – 2 Internal Control management system studies (Norway) – 1 negative (Sasvik & Nytro 1996)
    1 weakly positive (Torp 2000)
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If We Provide Incentives for OSHMS, How do We Decide Who Gets Them?

• What is the standard?

• What is the audit instrument? (Robson and Bigelow 2010)

• What is being audited? The program or the paperwork?

• Self-audit? Independent audit? Insurer audit?

• Who provides information? Is there worker input? If so, how are they chosen? How are they protected from employer influence or retaliation?
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“Conceptual Model” – Safety Climate

Underlying Risk

HSMS

Injury Rates
“Conceptual Model” – Safety Climate

Underlying Risk

HSMS

Safety Climate

Injury Rates
Safety Climate or Other Leading Indicators

- Safety climate (NIOSH): employee perception of the importance of safety within the organization and management commitment to safety

- Can safety climate be well-measured?
  - What are a measure’s validity & reliability
  - Measured at the individual or group level?
  - Whose perceptions? Workers? Supervisors? Health and safety managers?
Organizational Performance Metric (OPM)

• Formal safety audits at regular intervals are a normal part of our business

• Everyone at this organization values ongoing safety improvement in this organization

• This organization considers safety at least as important as production and quality in the way work is done

• Workers and supervisors have the information they need to work safely
Organizational Performance Metric (OPM) 2

• Employees are always involved in decisions affecting their health and safety

• Those in charge of safety have the authority to make the changes they have identified as necessary

• Those who act safely receive positive recognition

• Everyone has the tools and/or equipment they need to complete their work safely
Risk Ratios for Claim Rates by OPM Tier Levels with Tier 4 as Reference

Amick et al. 2011
Can we Provide Incentives based on Safety Climate?

- Can a measure of safety climate predict injury rates?
  - The evidence provides moderately strong support (Clarke, 2006; Payne et al. 2009)
  - But only 6 prospective studies found

- Can it be used in an incentive scheme?
  - Practicality of surveying an adequate number of people in many firms
  - Responses from health & safety managers or supervisors may be biased or not predictive of injury rates
  - Concerns about risk to surveyed workers
What do we Know About Health & Safety Impacts?

• Experience rating – you’ve heard from others

• OSH management systems – “insufficient evidence” (Robson et al. 2007)

• Safety culture – evidence of positive effect, but not clear how to audit for use for incentives

• Other options to reduce cost
  – Training, consultation, guidelines, subsidies
  – Little or no information about impact

=>

• We need to learn from any actions taken
Experience Rating has a Unique Advantage

- Focuses directly on injury and illness frequency and severity
- Other incentives focus on intermediate outcomes (programs, policies, procedures, perceptions, etc.)
- Their impact depends on both:
  - The impact of the incentive on the intermediate outcomes
  - The relationship between intermediate outcomes and injuries and illnesses
Building a More Complete Conceptual Model

Underlying
Risk

HSMS

Safety Climate

Injury
Rates
Underlying Risk

Management Commitment

Labor Relations

HSMS

Safety Climate

Injury Rates
What Makes it Hard to Learn About H & S Impacts?

- Voluntary vs. mandatory or incentivized
- Many factors, some unknown or unobserved, may be important
- Some likely important factors are difficult to audit – for example, management commitment
- Longitudinal nature of change
- Importance of environment
  - Within the firm (management style, manager ability; labor-management relations)
  - External to the firm (economic conditions, product market conditions)
Feedback and Improvement

• Acknowledge that policies may be more or less effective than predicted

• Build in experiments to allow for revision to improve effectiveness
Ideal Approach: Public Policy Experiments
Learning How New Policies Work

http://www.nationaltechcenter.org
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Concerns and other Thoughts about Experiments

• Evaluation problem: Improved safety climate is associated with better reporting (Probst, Brubaker & Barsotti 2008; Probst & Estrada 2009)

• Firms may complain about differential treatment

• Results may take several years

• Is this naïve?